THE WESTERN FARMER AND GARDENER,
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The Dana Apple.

A specimen of this excellent and good keeping apple was presented to the Horticultural Society, by Mr. Jacob Knoop, of Troy, O. It was previously presented to the society by Mr. Mottier. Further particulars will be given in our next number, as at this moment the persons best informed on this apple cannot be resorted to.

Guillotine Straw Cutter.

We shall never speak in the way of confident recommendation of any agricultural machines or implements, unless we have thoroughlyand practically tested them to our own satisfaction. There is a machine at *Huxley & Co's.*, the Agricultural Warehouse, on Fifth st., a Straw Cutter, which for simplicity, strength, and cheapness, we have no hesitation whatever, in bringing before the notice of the farming community. It is very rapid in its execution; and for compactness, low price, and neatness, cannot, we think, be easily surpassed. Let the farmers, cow-keepers, and livery stable people, call and examine for themselves. Good and cheap labor-saving machinery, cannot, in this country of dear labor, be too often or too earnestly brought forward.

Horticultural Books.

Mr. H. Huxley, near the Dennison House, has lately brought on from the east, all the horticultural works of T. Bridgeman, gardener and florist, New York. They comprise The Kitchen Gardener's Instructor; The Fruit Cultivator's Manual; and The Florist's Guide. All these are published separately, and at low prices. The Young Gardener's Assistant includes the whole of the above subjects, in one volume, which Mr. H. also has for sale, the latest edition, (the 10th,) and containing Mr. Bridgeman's latest improvements. This work is beautifully got up as to printing, paper, and binding. As practical and cheap works, the above deservedly rank among the best. And here we cannot forbear mentioning, speaking of this description of publications, that Mr. E. Sayers, who has lately come on here, is the author of two works, The American Flower Garden Companion, and The Fruit Garden Companion, which are valuable for their compendious and useful character.

Protecting tender Roses through the winter.

It may not be generally known, that all the tender roses, such as China, Tea, Noisette, Isle de Bourbon, will stand out in the open ground with a slight protection; in fact I have had a great many of them to stand without any protection whatever through our coldest winters. But they are all the better for a slight protection, and they will pay for the trouble.

I will tell you how I protect mine, and they have done well. In the first place, I drive a sharp stake, rather tailer than the bush, close to the root, firm in the ground, then take a string or willow and draw all the branches close up round the stake; do not be afraid of breaking one or two; then take some straight straw and stand it up all round, say an inch thick, tie it close around the bush, then throw two shovels full of manure around the bottom, and it is finished.

In the spring, as soon as they begin to grow, take off the straw, trim out the dead wood and dig in the manure, and it will not be long before they are in full bloom, and in good ground they will bloom constantly till November or till a very hard frost. Now some will say this is too much trouble! but are they not worth a little trouble? a fine rose, that will bloom all summer, I am sure pays well for the little trouble it takes to protect it through the winter. Any time in Nov. is time enough to tie them up.

S. S. JACKSON.

Spirit of the Agricultural Journals.

AGRICULTURE.

How to sustain Agricultural Societies.—Those who desire to see their County Agricultural Societies increase in numbers, and in spirit and usefulness, should take pains to *increase the circulation of agricultural papers* among the farmers of their county. In no other way can the object be so easily gained. All experience and observation have shown that *reading farmers* are the only ones that can be relied on to sustain and carry forward these grand means of improvement. Take your horses, then, ye friends of agriculture, and spend a day or two in calling on the farmers of your town or county, and induce them *all* to become reading farmers: they, or their children will thank you for it hereafter.—*New Genesee Farmer.*

Pickle for Hams.—To one thousand pounds of Hams, take three pecks of salt, three pounds saltpetre, two quarts of hickory ashes, two quarts of molasses, and two tea-cups full of red pepper; mix them well together on a salting table; rub the rind or skin of the ham well, and sprinkle with the balance; let it be from five to six weeks, then hang up and smoke with green hickory wood for five or six weeks; a little saw-dust also, if convenient. The red pepper prevents the skipper, I think. If the hogs are very large, I think more salt will be required. I generally put the large hams at the bottom of the tub.—*Ellsworth's Report.*

The disease in the Potatoes in the East.—Mr. Teschmacher, in the New England Farmer, attributes this disease to a species of fungus on the tubers. He recommends a liberal supply of salt to be spread on the land to be planted next year in potatoes, where the disease appeared this season, as a remedy for it. Others attribute the disease to an insect. The Westfield Newsletter says:—"From some of the infected potatoes may be seen the insect in its pupa state escaping. In others, you may, upon boiling, find the rudiments of the insect in embryo, while in others, nothing will be found, the insect having escaped. As to the health of the potato, it is like all other defective fruits, but no worse, and when sound, as healthy as at any previous year. The insect feeds upon the leaves and stems, when full grown, retires to the roots of the potatoes, and there deposites its eggs, which soon hatch; in a few days they retire from the potato to the ground, where it completes its final transformation,"

Profit of growing Mustard Seed.—We have recently purchased from J. H. Parmlee, of Ohio, a part of his crop of brown mustard seed, raised, as he informed us, on twenty-seven acres of good rich land, prepared with as much care as is usually bestowed upon good land. The seed, he says, was planted in rows, one foot apart one way, and two feet the other. The crop was well worked during the season, and when near up, was cut with sickles, laid on sheets or wagon-covers, hauled to the barn in the sheets, and then threshed and fanned.

He has delivered us a part of the product of twenty-seven acres of land, one hundred and fourteen barrels, containing three hundred and eighty-two bushels of forty-five pounds of brown mustard seed, weighing fifty-two and a half pounds per bushel, making twenty thousand pounds, for which we paid him eight cents per pound, making $1,608 00.

And he has, he says, one hundred bushels of tailings, which he estimates will clean up seventy-five bushels; say fifty pounds per bushel, making three thousand seven hundred and fifty pounds, at eight cents, $300 00.

Product of twenty-seven acres of brown mustard seed, $1908 00, or, $70 66 per acre.—*Farmer's Cabinet.*

Pickled Cabbages.—Quarter the firm head of the cabbage; put the parts in a keg; sprinkle on them a good quantity of salt, and let them remain five or six days. To a gallon of vinegar, put an ounce of mace, and one of pepper-corns and cinnamon. Cloves and allspice may be added, but they darken the color of the cabbage. Heat the vinegar scalding hot, add a little alum, and turn it while hot on the cabbage, the salt remaining. (The red cabbage makes the prettiest pickle.)—*Massachusetts Ploughman.*

Grafting the Chestnut on the Oak.—In the department of the Correze, an oak, engrafted eight years ago with the chestnut, has produced at length, chestnuts of good quality. The success of the experiment is deemed important for extensive districts where the oak flourishes, and the chestnut is barren, and where the fruit is needed for food.

Three hundred and twenty bushels of wheat per acre.—It has been asserted by some, and sneezed at by others in this country, that one hundred bushels of wheat could be easily grown upon a single acre. It will be seen that the following little experiment in England produced at the rate of three hundred and twenty bushels! The imperial bushel contains 2218-.192 cubic inches; the Winchester (our common bushel) 2150.42; the Imperial bushel, therefore, is to the Winchester as 1 to .969447.—The English quarter of wheat is eight Imperial bushels of seventy pounds each, equal to nine and a half American bushels of sixty pounds each.—*American Agriculturist.*

Fall Ploughing.—If the land abound in clay, this is essentially necessary, as frost is a much better pulverizer of the soil than the harrow and roller. Besides, fall ploughing exposes insects of most kinds to destruction. Sandy or light gro-

Nothing said of the different size of the acres here & there.

vely lands may be ploughed in the Spring.—*American Agriculturist.*

Prices of Fancy Poultry in New York.—

Pigeons, fan-tails, per pair,	$1 25 to $2 50
" tumblers,	1 00 to 2 00
" English pouters,	4 00 to 7 00
" Carriers,	5 00 to 20 00
Ducks of different kinds,	2 00 to 4 00
Bantum fowls,	1 00 to 2 0.
Poland do.	2 50 to 3 50
Dorking do.	4 00 to 5 00
Small China Geese,	3 00 to 4 00
Large China Geese,	5 00 to 8 00
Bremen Geese,	2 00 to 4 00
Wild Geese,	5 00 to 6 00
Guinea or African Goose,	10 00 to 15 00
Turkies, pure white,	2 50 to 4 00
Rabbits, according to variety,	1 00 to 10 00

These prices will vary according to their being scarce or plenty. There are also some other expenses to be added, caging, carting, shipping, &c. &c.—*Ib.*

Feeding Fowls.—Fowls require a variety of food. Grain of all kinds is good. *Wheat ecourings*, which can be had at all mills where wheat is ground, constitute a cheap and good food for fowls. Buckwheat, barley, oats, and indian corn, should also be given occasionally. They should also have animal food. This may be supplied from the offals of slaughter-houses. If they are kept confined, they should have occasionally some cabbages cut up, and given them. Potatoes and turnips will also be found useful.—*Ib.*

Disappearance of the Curculio in New England.—The New England Farmer, encouraging the cultivation of plums and other fruits, says the Curculio has this year in a great measure disappeared, and asks, to what cause may we attribute its sudden exit? Was it the severe cold winter which gave them the check? At Albany, N. Y., the exemption of fruit from the attack of the curculio, has been noticed, and an abundant crop of plums has been obtained. Around Cincinnati and in the states of Ohio, Indiana, and Kentucky, as far as we can ascertain, this insect has been this year very destructive to the fruit: it also commenced its ravages proportionably early with the season. Probably the ravages of this insect in the above parts were owing to the late mild winter in the West.

Cooking food for Swine.—Dr. Lee, in an article on pork-making, in the last New Genesee Farmer, says:—"From some experiments of my own, and considerable research into the published results of the experience of others, I am satisfied that ten bushels of boiled potatoes, thoroughly mixed with the pudding that can be made from three bushels of corn or peas, will make as much pork as twenty bushels of potatoes, or six bushels of corn or peas fed raw."—*Albany Cultivator.*

HORTICULTURE

Blight in pear trees.—A new discovery.—A friend has just mentioned to us a remedy for this formidable disease in pear trees, which he has found effectual. On discovering the blight which had become very general in his trees, he immediately cut off the branches it most affected, then scraped the bark from the trunk and limbs thoroughly, to the live bark, and applied a strong ley from wood ashes. Although the bark bled profusely in many places, and was turned to a dark brown in applying the ley, the trees immediately put out deep, green leaves, and have since been entirely recovered. The common ship-scraper was made use of in scraping the trees.

The result of the above treatment would seem to indicate, as has been latterly asserted, that blight is owing to a minute insect concealed within the bark, (see Dr. Mosher's letter in Nov. No. p. 91, of Farmer and Gardener.)—We should be highly gratified by the reception of any communications on this subject, proving more fully, if possible, whether we are correct in our supposition.—*American Agriculturist.*

Ripe Fruit and Dysentery.—There is a pernicious prejudice with which people are too generally imbued—that fruits are injurious in the dysentery—that they produce and increase it. There is not, perhaps, a more false prejudice. Bad fruit, and that which is imperfectly ripened, may occasion cholics, and sometimes diarrhœa, but *never* epidemic dysentery. Ripe fruits of all kinds, especially in the summer, are the true preservative against this malady. The greatest injury that they can do, is in dissolving the humors, and particularly the bile, of which they are the true solvents, and occasion a diarrhœa. But even this diarrhœa is a protection against the dysentery. Whenever the dysentery has prevailed, I have eaten less animal food and more fruit, and have never had the slightest attack. I have seen eleven patients in one house; nine were obedient to the directions given and eat fruit—they recovered. The grandmother, and a child she was most partial to, died. She prescribed for the child burnt brandy and oil, powerful aromatics, and forbade the use of fruit. She followed the same course herself, and met the like fate. A minister attacked with dysentery, ate three pounds of red currants between seven o'clock in the morning and nine in the evening—next day he was entirely cured.—*Tissot.*

Splendid Flowers.—Mr. Hovey, Editor of the Magazine of Horticulture, at Boston, is now making a tour in England, and in his notices of flowers, &c., abroad, thus speaks:—"Of all the objects, which have as yet attracted our attention, none have compared with the display of the Lilium Lancefolium, in the collection of Mr. Groom, of Clapham. We have on several

occasions, noticed these lilies, and at least three of them have been described in our pages, from the journals where they have figured, and each of these have flowered in the collections in our vicinity; not, however, in any thing like the splendor in which they are to be seen around London at this moment. What an expedition was that of Siebold to Japan! If the question were to be asked us, what we consider the greatest acquisition within the last twenty years, we should say the Japan lilies. Indeed, we would almost say, that nothing but the Camellia, during the last century has been greater.—But the lilies were not all; the camellias, the clematises, Sedum sieboldii, and many other things, will long perpetuate the name of Dr. Siebold, and render it familiar to all the lovers of plants." There are now four varieties, called by Mr. Groom as follows:—L. lancifolium, album, punctatum, roseum, rubrum; the latter, perhaps, better known as the L. speciosum.—They may be classed in regard to their beauty, the reverse of the above, viz: rubrum, the most, and album, the least splendid; but each of them of surpassing beauty: album and punctatum, and rosèum the rarest, having been recently received from Ghent. Good, strong, flowering bulbs of each, command very high prices.

Preserving apples in pits.—Apples may be kept in pits after the manner of potatoes; we have seen this practised both in France and England with success, (it is generally done in the West,) but the fruit does not keep long after is is taken out; consequently, only a small quantity should be taken out at one time, and the pit should be instantly closed up, to prevent the admission of air. Apples kept in this manner will be found quite good and sound in the months of May and June, or even July, if they have been pitted in a careful manner, all bruised ones, being rejected, which would destroy the others. A little powdered charcoal should be carefully sifted over the apples as they are laid up, which should be done in regular layers.—The charcoal absorbs any moisture, that is given off by the apples, and keeps all cool. After this is done, take some clean wheat straw, or hay, and lay it over the fruit, to the thickness of a foot, fastening it down with ropes of the same material, then cover them up with earth to the depth of a foot. This covering will prevent any change in the atmosphere from reaching the apples. The operation should be performed in dry weather.—*Gardener's Chronicle.*

Mending a tree.—The Boston Cultivator says:—"We saw at Isaac Frost's, Newton, a tolerably large apple-tree that had the bark eaten all around by mice, some years ago, and of course would have died, without some extra pains to save it. Mr. Frost set about a dozen scions in the tree, one end in the green bark and wood below, and the other above the wound. They all took at both ends and grew well, except one which took only at the bottom, and is forming a little tree by itself. The scions are now about two inches in diameter and are touching each other. The tree is in a fine flourishing condition."

Peaches.—The Editor of the Boston Cultivator gives an account of a visit to the "Allen neighborhood" in Walpole, where he found some of the finest peach orchards in the country. He states the following singular fact in relation to a variety of the peach reproducing its kind. He says:—"The principal peach cultivated here, is the Allen peach, which is a seedling that has been propagated from the seed for more than forty years, through many generations of trees, always producing the same, without budding or grafting. There is no more deviation from the original or standard kind, than there is in the Baldwin apple, or other varieties of fruit propagated by budding and grafting. We saw some trees bearing full that were twenty-eight years old, and they had borne well from their youth to their old age." It is said to be a good peach—color light, with a red cheek—a freestone.—*Albany Cultivator.*

A monster cabbage.—Mr. Elthan Burroughs of Ferrisburgh, presented us last week with a perfect monstrosity, in the shape of a cabbage. When placed on its face, it covered a surface of thirteen feet in circumference, measured around the solid head six feet, and weighed thirty-three pounds. If any one has got a match to this, let him produce it.—*Vergennes Vermonter.*

Extraordinary yield of squashes.—Mr. B. Weld, of Roxbury, informs us, that from one vine of the Valparaiso squash, he gathered eleven squashes, weighing as follows, viz: 84 lbs. 73, 69, 62, 59, 58, 44, 27, 22, 20, 10,—making a total of 528 lbs., which he sold for $5 on the ground.—*New England Farmer.*

Miscellaneous Notes.

In speaking in our last number of the very fine and rare flavored Cantelope melon, called the Pine-apple, raised by Mr. J. C. Ferris, nurseryman, of Pleasant Ridge, O., we omitted to mention that the *seed* was both raised and brought to this part of the country by Mr. H. Huxley. He has also, at his seed store on 5th street, near the Dennison House, some of the seed of as superior a kind, of both the Nutmeg and Citron melons, which he states, is as delicious in taste as the Pine-apple melon. We have met at the Horticultural Society's Rooms, with a surprisingly large kind of the white gourd species of corn raised by Mr. John Keizer, of Delhi. We are informed he has raised more than an acre of this corn, all uniformly of im-

mense size, some of the ears being from 15 to 17 inches in length, and well filled. The only fault we find in it is, that the cob is rather too large, though not, we believe, unusually so, for most of the gourd corn. Mr. Huxley will have some of this corn for sale at his store.

It has given us much pleasure to find that some of the objects that we have often recommended and urged, are about to be realized by the Agricultural Society of Hamilton county. We allude to the professorships in Botany and Vegetable Physiology, Zoology, Anatomy, Physiology and Pathology of the domestic animals, Agricultural Chemistry, and Geology. This, with the other designs for the future, contemplated by the Executive Committee, is a good beginning indeed. There are other things which will naturally be united to these purposes of the society—one of which is a farmers' conversational club, which may be held at first once a month, in some convenient room about Fifth street, in Cincinnati. There we may at every meeting, fix upon some leading subject, as the grain, the grasses, fruit, poultry, &c., to be discussed at the next appointment; every farmer, in an easy, familiar and sociable manner, giving in his items of knowledge. This will often be instructive to the members, and being published, will be useful to the agricultural community at large.

On one of those lovely, calm, and bright days in November last, we rode over to visit Spring Garden Nursery, owned by Mr. A. H. Ernst.—Our object was more particularly business, viz: to purchase some evergreens of him, knowing that he possessed a considerable number of these pleasing varieties in the vegetable world, so highly gratifying to our sight and feeling in the more gloomy season of winter: we found more of these, and of greater variety than we expected, most of them being well grown and of beautiful form. Besides these, we observed, in walking over the well managed ground, many long rows of fine sized Catalpas, so desirable in all respects for shade trees, as well as English Chestnuts, Mountain Ashes, Buckthorns for hedges, and other beautiful trees and shrubs. Mr. Ernst has adopted the eastern plan in grafting the pear on quince stocks, where the sorts suit, and where they do not, he grafts those which will flourish, and afterwards on these, the kinds which will not agree with immediate contact on the quince.—The object in grafting on the quince is, by this dwarfing or *espaliering*, to bring the trees soon into fruiting. Among the things which Mr. E. turned his attention to in his late eastern visit, was the subject of growing the grape under glass. Of this, we trust we shall soon hear something from his pen, or learn more than is yet known here, from his practice. For fruit trees, this nursery is pretty well off, particularly for fine sized apples. The whole grounds are well situated on a beautiful slope, and in good order.

We have received from Mr. Caldwell, President of the Hamilton county Agricultural Society, an excellent recipe for making pumpkin butter. This may appear a trifling matter, but our health and happiness are greatly made up of trifles, as an inconceivable number of drops of water, compose the vast oceans of the globe: and we do not consider it beneath the President of an honorable society, to disseminate information, which, insignificant as it may appear to some, will, when it is generally known and practised, contribute to promote in some degree the welfare and comforts of our fellow men.—Small benefits, when spread over miles, and through millions, assume an important magnitude in the aggregate. But putting a stop to philosophising, let us proceed to the best method of making pumpkin butter for preservation!—Well then, as some of the old cookery books say, having first raised your pumpkins, and we may add by way of being still more particular in our directions than those ancient culinary oracles, having hauled them home, proceed to wash their *outsides*, and cutting them up entirely with their *insides*, except the seeds, stew all until the whole mass is quite soft. Strain this, in a seive, or through straw over a tub, until the juice is entirely separated from the crude matter. After this, boil the juice until it is of the consistency of molasses, in an iron kettle. Peel other pumpkins of good quality (generally called, pie, butter, or sugar pumpkins) and slice them into the liquor until it is of the thickness required for use. Put it afterwards in stone jars, covering it over on the top with melted tallow, or sealing it hermetically from the air. It has been known to keep good thus for seven years.

We have lately been informed by a respectable gentleman residing in Missouri, that there is a duck called the Poland, a kind between the Muscovy, and common duck, which lays eggs very plentifully, is very easily raised, and the young ducks are ready for the table in August. They were first introduced in Winchester, Va., by a brother of Mr. Griffin Taylor, of our city.

We have learned from the same respectable source that there was raised near to where he resided in Missouri, a pumpkin which weighed, when measured no less than one hundred and eighty-five pounds. The seed came from a Mr. Steinberger, a great cattle dealer in Virginia.

About two months ago, we visited the nursery of Messrs. Sayers and Heaver, about one and a half miles on the Reading Turnpike, for the purpose of purchasing one hundred of his finest pear trees, having heard that he had about the largest lot as far as regards size for the same age, that was ever grown in the West. We

found this to be the case, and purchased of these careful and judicious nurserymen one hundred pear and one hundred apple trees. We planted these out, intending to fill up between with choice peach, cherries and plum trees. Most of these latter we purpose obtaining from Mr. C. W. Elliott, who, independently of the large assortment of all kinds of fruit trees at his nursery at Walnut Hills, has just received from the east a most splendid consignment of various fruit trees, of very large size—his cherries and plums being large enough to bear in one or two years. We consider that the neighborhood of Cincinnati is now very well off for both skilful, careful and honorable nurserymen, as well as florists, amongst the foremost of whom may be named Messrs. S. S. Jackson, A. H. Ernst, Sayers & Heaver, and C. W. Elliott, and we really trust that the public will always be inclined to patronize those who adopt their employments as a business for a living, rather than those who enter into the same occupation, as merely incidental to any other business. The above gentlemen attend to the management of their nurseries *personally*, therefore there can be but a small liability to errors. Farmers may raise a few apple-trees and peaches, and perhaps a very small number of cherries and plums, of good sorts, for their own use, but the old saying of *ne sutor ultra crepidum* is a good one for several reasons, and being interpreted, means—"let the shoemaker keep to his last." This is only fair and right, and resolves itself into—"live and let live." We have purchased of Mr. Clinton Ferris, who has opened a nursery, &c., near Montgomery, one hundred Catawba and Isabella grape vines, besides twenty cherry trees of varieties. We are informed that Mr. Ferris has commenced the nursery business with an intention not to he behind his brother laborers in close attention and spirited energy. We heartily wish success to all upright and skilful nurserymen, and hope that they will meet with the reward due to perseverance and industry in a most useful and honorable calling. E. J. H.

Fall Planting.

Various opinions circulate, even among cultivators of fruits, as regards the best season for planting out trees, and generally the opinions are in favor of the spring, but more from the fact that the people do not think, actingly upon the matter, until the spring with its freshness, bursts upon them, and revives in their minds the importance of having some fruitful thing of their own through which, in its fruits, they may be reminded that their life has not been of utter uselessness.

At this present season, when Nature always clothes herself in Winter's garb, man also wraps himself up, unthinking that Nature has provided that a few months only will again bring forth her beauties in new and resplendent glory. What advantages spring planting has over that of fall planting, the writer has never yet been able to learn. Upon a dry, sandy soil, such as is in the vicinity of Cleveland, or in any light soil, trees planted out in the fall, will have opportunity to get the earth settled in among the young fibrous rootlets, and the tree will be ready to put forth in the spring with a prospect of a full supply of nourishment to support it through the season, and no fears can be entertained justly, of danger from frost to the roots, in any light soil. On a strong clay soil, or in a wet situation, it may be better to wait until spring, as in clay soils the earth does not settle as finely among the roots, and in the low grounds there may be danger of disease or rot from the action of water upon the roots when they are not united with the soil, and keeping up their regular action for the support of the tree.

More depends, however, upon the manner of setting the tree than upon the season, as the writer can testify, having planted trees at almost all seasons of the year, and with almost universal success, but would yet give the preference to the fall, from a conviction that less injury is done to the growth and future health of a tree than at any other season. While upon this subject it may perhaps be well to say a word upon the manner of planting, for although a subject often treated upon, yet to the sorrow of every lover of thrifty trees, it is too oft read and forgotten. A tree must be considered as a living thing and requiring constant nourishment, and should not, therefore, be crowded into a narrow space, like a post, but should have abundance of room for the natural spreading of all its roots, with the earth carefully shaken, and pressed with the fingers, among them. Many a tree struggles on for years, after being transplanted, ere it recovers from the adverse condition in which a hasty, unskilful hand has placed it. The earth should be rich, and if not so, let some compost manure be well mixed in among it, and not, as is often seen, large quantities of fresh manure laid directly about the roots.—*Cleveland Herald.*

American Peaches.—Mr. Edward Wilmer, of the European Times, on leaving Boston, in September, took with him a box of peaches, which arrived at Liverpool in good condition, and were greatly admired as the product of the United States. They were provided by Mr. Hovey.

ADDRESS

Delivered before the Hamilton County Agricultural Society, at its Annual Fair, September 20, 1844.

BY W. H. H. TAYLOR.

Without practical experience as a tiller of the soil, and imperfectly versed in the theory of agriculture, it may be considered presumptuous in me to attempt to make an address to a society of agriculturists, which would be worthy of their consideration. The deep interest which I feel in the success of the Hamilton County Agricultural Society, now about to close its first annual exhibition, as organized according to the laws of the State of Ohio, will be the only apology I shall offer for my feeble attempt to address you. To give a history of agriculture, would be a useless waste of time, which could lead to no practical end. I shall endeavor merely to offer you a few hints, upon some of those points which have heretofore been too much, if not entirely neglected.

It would be superfluous in me to address you upon the IMPORTANCE of this art, upon which so many millions are dependant for their sustenance, and in the prosecution of which nine-tenths of the fixed capital of every civilized nation is embarked. There are periods in the history of every country, when attention to agriculture becomes more important than at others. When sparsely settled, a negligent and defective system will often produce food enough, not only for the supply of its own inhabitants, but for the partial supply of other countries also. But when the population becomes more dense, the same system will not answer. The land will not increase, to yield the additional supply of food for the consumption of its inhabitants, but that additional supply must be produced by the better cultivation and more skilful management of the same quantity of soil. Its special qualities and defects must be studied, and means gradually adopted for extracting the greatest amount of produce from every portion susceptible of cultivation.

To prove that this proposition is correct, let me direct your attention to China, with its three hundred millions of inhabitants. In that country we see a people whom we call semi-barbarians multiplying within their own limits till their numbers are almost incredible, practising, from the most remote ages and in the most skilful manner, various arts, which the progress of modern science has but recently introduced into civilized nations, cultivating their soil with the most assiduous labor, and stimulating its fertility by means which we have hitherto neglected, despised, or been wholly ignorant of,—but which the discoveries of the present time are pointing out as best fitted to secure the amplest harvests,—and have thus been enabled to compel their limited soil to yield a sufficient sustenance to its unlimited population. The example of the Chinese shows us that the productive powers of the soil are not to be easily estimated. Nothing repays the labor of the husbandman more fully than the willing *soil*,—nothing is more grateful for his attention, or offers surer reward to patient industry, or to renewed attempts at improvement.

But how few practical men are acquainted with what is already known of the principles of the important art by which they live! Trained up in ancient methods, attached generally to conservative principles in every shape, the practical agriculturists, as a body, have always been more opposed to change than any other class of the community. They have been slow to believe in the superiority of any methods of culture which differed from their own,—from those of their fathers,—or of the district in which they live; and even when the superiority could no longer be denied, they have been almost as slow to adopt them. But the awakening spirit of the times is making itself felt in every agricultural district; old prejudices are dying out, and the cultivators of this most ancient, most important, and noblest of all arts, are becoming generally anxious for information, and eager for improvement.

One circumstance alone has contributed more to retard the approach to this better state of things in this country, than any other which I can think of. The encouragement of experimental agriculture has been in general neglected, while the diffusion of practical knowledge has been either wholly overlooked, or considered subordinate to other objects. No national efforts have been made for the general improvement of the method of culture. While for the other important classes of the community, special schools have been established, in which the elements of all the branches of knowledge most necessary for each class have been more or less completely taught, and a more enlightened, because better instructed, race of men gradually trained. No such schools, in our State, at least, have been instituted for the benefit of the agriculturist. In our Universities and Seminaries of learning, in which the holders of land,—those most interested in its improvement,—are nearly all educated, a

lesson upon agriculture,—the right arm of the State,—has hitherto scarcely been given. With the practice of the art, the theory has also been neglected. Scientific men have had no inducement to devote their time and talents to a subject which held out no promise of reward, either in the shape of actual emolument, or of honorary distinction. With the exception of a small number of periodical publications,—none of these even too well supported,—by which attempts have been zealously made to diffuse important information among practical farmers, it cannot be denied that the press has not been encouraged to do its utmost on behalf of agricultural knowledge in general.

We may with certainty predict, however, that neither the practice nor the theory of agriculture will be permitted to experience in future that want of general encouragement under which it has languished in this State, and especially in this county, for several years past. The public mind has been awakened, and the establishment of Agricultural Societies in many counties of this great State, is a manifestation of the interest now felt upon the subject, the influences of which will produce incalculable good. It requires only the general exhibition of such an interest, and the adoption of some general means of encouragement, to stimulate both practical ingenuity and scientific zeal to expend themselves on this most valuable branch of national industry. Science is never unwilling to lend her hand to practical art; on the contrary, she is ever forward to proffer her assistance, and it is not till her advances have been rejected, or frequently repulsed, that she refrains from aiding in their advancement. And how numerous are the branches of science connected with this art? Need I speak of botany, which is, as it were, the foundation on which the first elements of agriculture rests; or of vegetable physiology, to the indications of which it has hitherto almost exclusively looked for improvement and increased success; or to entomology, which alone can throw light on the nature of the numerous insects that prey upon your crops, and so often ruin your hopes, and which can alone be reasonably expected to arm you against their ravages, and instruct you to extirpate them.

It may be said with truth, that no department of natural science is incapable of yielding instruction, that scarcely any knowledge is superfluous to the tiller of the soil. It is thus that all branches of human knowledge are bound together, and all the arts of life, and all the cultivators of them, mutually dependant. And it is by lending each a helping hand to the others, that the success of all is to be secured and accelerated; while with the general progress of the whole, the advance of each individual is made secure. The time, therefore, is peculiarly favorable for the increase and diffusion of agricultural knowledge. The growth of our population requires it,—practical men are anxious to receive instruction,—scientific men are eager to impart what they know, and to make new researches for the purpose of clearing up what is unknown. Are we not justified, therefore, in anticipating hereafter a constant and general diffusion of light a steady progress of agricultural improvement?

Although other avocations may offer greater prizes in the lottery of life, yet if we compare the advantages of rural industry with those of any other of the common occupations to which men devote themselves, we shall find that he who is engaged in agriculture, has no reason to be dissatisfied with the lot which fortune has assigned him. Its superiority, in point of salubrity, over every sedentary employment, is too apparent to require illustration, and it affords more of those common enjoyments which constitute much of the elements of happiness, than any other state of *mediocrity*. The farm-yard, the orchard, and the dairy, supply almost without expense, abundant means for those gratifications usually termed the "comforts of life," besides many luxuries that are beyond the reach of people of humble fortune. Few persons, indeed, are insensible to the difference of mere animal existence, as enjoyed by the farmer who passes his days in healthful labors of the fields, and that of the mechanic or the shop-keepers, who wear away their lives at the loom or the counter. But it is not in that alone, that the advantage consists.

Of all the feelings which we cherish, none is dearer to us than the consciousness of independence; and this, no man who earns his bread by the favor of the public, can be said to enjoy in an equal degree with the farmer. Traders, as well as those termed professional men, are rivals, jealous of each other's success, and, let that be what it may, they still owe a deference to the world that is often galling to their spirits. But the farmer fears no competition. Individually, he has nothing to fear from the success of his neighbor; he solicits no preference, and he owes no thanks for the purchase of his wares. His busi-

ness, though subject to more casualties than almost any other, is yet so divided among many risks, that he is rarely exposed to the hazard of total failure; the same weather which injures one crop, often improves another, and the very difficulty of a critical season opens a field for exertion by which he is frequently a gainer. Possessing on his land all the means of life, he is under no corroding anxiety regarding his daily subsistence; he is removed from those collisions of interest, and those struggles for precedence, which rouse the worst passions of our nature; and his constant observations of the beneficial dispensations of nature for the care of all her creatures, can hardly fail to impress him with a deep sense of that religion of the heart which consists in the conviction of and reliance upon the care of an all-ruling and all-bountiful Providence.

In recent rambles through the county of Hamilton, I have been painfully impressed that too little attention is paid to the protection of stock from the inclemency of the weather. Not one farmer, within my knowledge, is provided with a sufficient number of sheds and barns to preserve from suffering his sheep, hogs, and other cattle, from the product of which he reaps so many pecuniary advantages, and so much solid comfort. It is an erroneous idea, that such animals are provided by nature with sufficient protection from the inclemency of the seasons. Sheep are generally thought to suffer less from cold, than any other animal; but it is a mistake. No animal is more easily affected by it, and few, if any, liable to as many diseases from the effects of exposure; and when once a flock becomes diseased, it will require more to cure them than the barn would have cost to house them in. In addition to the loss of time and money in curing the diseases, the yield will be greatly lessened both in wool and offspring. So it may be said of all the animals generally found upon a farm. Without proper care and attention, they will become a burthen instead of a source of profit. The necessary buildings for their protection and comfort may be put up at a trifling expense, when compared with the greater profit arising from housed to unhoused stock. They should not only be protected from the inclement weather, but their food should be given to them in such a way as to make it easy of digestion, and thereby improve their condition, and enable them better to withstand labor. Your oxen should receive the same nourishing food that you give to your horses, and although the same kind of food may not be necessary, yet nutritious food should be regularly given to every animal from which the farmer requires labor.—And that farmer who pays proper attention to his stock of all kinds, is more than doubly paid for his outlay and trouble in the increase of healthy offspring and more saleable stock, which will always command the highest market price.

There are many other points to which I would like to call your attention, but the limited time given me to prepare this address, has only enabled me to generalize, except upon one or two of those branches which I concieve of paramount importance; one of which is the mode of cultivation generally adopted in this country. Blessed with a soil unsurpassed for fertility, with a climate suited to the production of all the staple commodities of the vegetable kingdom, with proper attention this county should occupy the front rank in the science of agriculture. But to enable you to occupy this elevated position, too much care cannot be bestowed upon the soil. Are you not exhausting your soils by the injudicious practice of cultivating the same crop year after year upon the same fields, taking everything from it and giving no return for its bountiful yield? I cannot better explain my meaning upon this subject, than by giving you an extract furnished by a friend. It is a subject of much more importance than any other to the farmer. "The richness of a soil is derived not alone from the mineral, but almost entirely from the vegetable world. There are a few earths, alkalies and oxides taken into the growing plant in small quantities, but the main food of plants is merely the remnants of previous vegetation, going through the process for the thousandth time. By a chemical process, part of the decayed vegetable forms one or more acids, and these unite with such alkalies as lime, soda, and potash; in this state, the several compounds are soluble to a certain extent, and nature takes them into the pores of the tree or plant. The substance in the soil, composed of the acids just spoken of, in a state of combination with each other, is called geine, and when with alkalies the substance is called a geate of lime, soda, or potash. The color of the geine is brown and tough like glue. In the richest soils the geine amounts to about ten per centum, but only about six per centum is available, because the solution is not complete. A soil may have plenty of vegetable mould, but for want of alkalies not be rich; or a piece of land may be covered with marl or potash, and not having any mould to mix

with it, may be as barren as a heap of sand. The western soils contain about five per centum of the salts of lime and of soda. If the average of a soil is six inches deep, a crop of corn or wheat will take away one pound from each square foot in the field, and this is taken mainly from that portion which forms the geates or soluble nutriment. The sandy parts, amounting to eighty-five per centum, furnish only a very minute portion of the plant; they merely make a foundation for it. Now, land in a wild state is constantly increasing its vegetable mould, and consequently continually growing richer up to a point where all the alkalies are taken up. But when you begin to cultivate, you carry away part of the growth of the land. The weight of that portion of the soil which is necessary to furnish food for the plant is, on an average, about eight pounds to the square foot. If you take away one pound each year, it is easy to calculate when your soil will become exhausted and worthless.—Here you have it in numbers. We may suppose that most soils have acquired their supply of geine before cultivation began, and we know that if you return the vegetable part of each crop, they will retain their primitive richness; in almost every crop a part is left or returned, and therefore the soil must last many years even under this system of abuse. But it is easily seen that any western land can, in time, be made as barren as the Virginia and Maryland Shore is now. You may say you can *see* no change or difference from year to year. How many tons of hay, corn, or wheat, do you take from this soil? Why, two and a half, or three. Where does it come from? From about ten per centum of the soil. How much does this ten per centum weigh? About one thousand tons. But the soil will cease to bear long before this is exhausted. It becomes almost worthless after the proportion between the vegetable and mineral portions are destroyed. When that balance is lost, its powers are crippled at once, and so slow is the process of repair, even after all the materials are returned, that it must be idle several years before the proper chemical action will take place. And if the work of deterioration is slow, so will be the work of restoration; and also, if you and your neighbor continue the same system, it will cover the whole country. The consequence of this will be, that in one or two generations your posterity will inherit a soil like the worn out and abandoned countries of Greece and Africa. The methods of reviving and cultivating exhausted lands are well known, and applied annually will secure to your field a perpetual fertility." The farmers in newly settled countries seem to forget that the fertility which gives them great crops is the accumulation of ages, and they act as though it was inexhaustible. They do not consider that land, like everything else, will wear out by bad husbandry; and that it is the duty, as well as the interest, of the husbandman to endeavor to preserve and to perpetuate its fertility. Their system is that of exhaustion. The lamentable effects of this system are seen all along the Atlantic border, where large districts once teeming with fertility have become poor and sterile. And even in many of those States whose admission into this glorious Union is still fresh in the memories of many of us, we already hear of exhausted fertility and worn out lands, and the inhabitants of those States in countless numbers are pushing to the Far West in search of new and virgin soils, which, under a bad system of management, they may in turn feed upon and exhaust.

The deterioration of lands by constantly cropping, without returning to them the means of fertility, is as inevitable as is the starvation of animals from whom we withhold the food necessary to their existence. The augmentation of fertility by draining, manuring, and alternating crops, is matter of as equal certainty. You possess the means,—you have abundant examples to guide you in their application, and if you will but exercise intelligence, industry, and perseverance, you will preserve fertility in your soils.

The Executive Committee of this Society have authorized an agricultural survey to be made of the county of Hamilton, by Messrs. Charles Whittlesey and A. Randall, both of whom are gentlemen of scientific attainments, and eminently qualified to perform the duties assigned them. The committee hope and believe that the farmers of Hamilton county will cheerfully render to these gentlemen every assistance, and collect and communicate all the information in their power.

The surveyors will visit all (or nearly all,) the farmers in the county, and their object will be to hear all that any of them have to say about their crops, their system of planting and manuring, and particularly as to the yield.

They do not expect to be able, as they represent to us, to give to our farmers much *original* information, but to make themselves the medium of communication from each farmer in the county to all the others.

All improvements in stock, fruit, and agricultural implements, will be thus obtained, not by theory, but from the actual experience of agriculturists themselves in your own immediate region.

Their report will embrace all the different modes of farming on different soils, showing by the yield, which is the profitable method. Particular attention will be paid to manures. It will show which are the cheapest and which the best, and also their benefits to the crops. We ask for these gentlemen that kind attention when they visit you, which so laudable an undertaking justly merits.

Among the great variety of methods adopted to improve the interest of the farmers, there is not one calling more loudly for your support and encouragement than Agricultural Societies.

Look for a moment at the miserable state of agriculture in England and Scotland, from the time of the union of those two countries to the close of the American war. No improvements of consequence took place, except the introduction of the drill system by Tull and the practice of Bakewell in improving sheep. But since that time to the present, the advancement of the rural art in all its various branches has been steady and rapid; and at this day, whole districts, which were, at the close of the American war, considered barren wastes, are now yielding luxuriant crops. There are many causes to which this change might be attributed, but to none more justly than to Agricultural Societies for the improvement of the rural art. Our Society is instituted for the purpose of improving this noble *art*, and the benefits arising from its operations, if well conducted, must be manifest to all. I call then upon you, farmers of Hamilton county, to aid us. Throw aside those prejudices which you have so long entertained, and give this Society a fair opportunity to accomplish the object of its formation. You are bound by every principle of patriotism to sustain it. Your own interests will be greatly enhanced, and the good effects of it will be felt and highly appreciated by all classes of the community.

There is one other point to which I wish to direct your attention, and I am done; for I fear I have already trespassed too long upon your patience. It is, that you do not, as a body, encourage with sufficient liberality the Agricultural Papers of our country. They may not learn you to work, or inure you to it, if you are averse or unaccustomed to it; but a well conducted agricultural paper will present for your consideration facts which, if rightly understood, will enable you to work to the greatest possible advantage, thereby economizing time and labor with increased profit. They may not learn you to plough, for this you are supposed to know already; but they will point out the best ploughs, and present to your view the experience of the best practical farmers as to the depth and manner of ploughing the various crops and soils. They are the common medium through which the farmer may impart and receive instruction. In the columns of our Agricultural Journals they all meet and compare facts, ideas, and practices. It is the channel through which they are all improved, while at the same time they impart instruction to their fellow men. The practical farmer learns through this medium that there is a great variety of soils, each more or less specially adapted to certain species, and each more or less unsuited to certain other species of vegetable productions. He learns through its geological descriptions to what class of soils his land belongs, and through its chemical essays how to analyze them. Through the same sources he is made acquainted with the chemical and other actions of the various manures, and learns what manure his particular soil requires and how to apply them. Through this medium, he meets with all the various improvements in the implements of husbandry, with all the newly discovered modes of destroying the various predatory insects that prey upon his crops; with all the most approved remedies for diseases which beset and destroy his live stock. In short, a good agricultural paper, contributed to by practical and scientific farmers, will be of service to you in so many points of view, that I am unable to enumerate them. It is a store-house of agricultural knowledge, from whose ample portals the best of farmers may always draw something new and useful; for its contents are made up of the best opinions and practices, the best results of the most careful observations and accurate experiments of all the best farmers of the world.

I will only add a remark made by one who is no less skilled in agriculture than in the science of law, that "while agricultural papers are among the cheapest periodicals of the day, no farmer of common intelligence can peruse one conducted with ordinary ability, without being actually benefitted, even in a pecuniary point of view, to an amount at least tenfold greater than the price of his subscription."

New Agricultural Implements.

Mr. Huxley, of the Agricultural Store on East 5th Street, near the Dennison House, has lately been on to the East, and amongst other objects there, examined some of their most simple, effective, and cheap implements for the farm. He has brought back with him several good articles which are worthy of a notice on account of their usefulness for us in the West. Amongst these are three different sizes of side hill ploughs with which the furrow slice can be always turned down-hill—a great advantage, particularly in stubble and sod land. He has also a double pointed expanding cultivator with five teeth, which is a strong implement, and excellent for cleaning and stirring the surface of the soil: a double mould-board plough to mark furrows for planting corn, potatoes, &c.: subsoil ploughs of two sizes, broader in the mould board than those in common use, having the advantage of turning of course a broader sub-surface: there are also very neat and compact cornshellers enclosed in a box to prevent the corn from scattering; these operate well and do the work clean, and as fast as two hands can throw the corn in. There is also Langdon's Cultivator, which for digging potatoes, or root crops is unrivalled. When used for that purpose, the weed cutters should be put on,and the plough should be drawn by a double team; the plough must be directed under the middle of the hill just deep enough to raise the crop to the surface which it does well. When the crop requires more earthing or hilling than the weed cutters can do, they are to be taken off, and the mould boards are to be put on. There are some very favorable testimonials of the value of this implement. Mr. Huxley has also a very simple, strong, and cheap Guillotine straw cutter; also Mayhew's improved two-horse plough with a cutter fixed on the share which works well and rapidly. There are also numerous other good smaller agricultural and horticultural tools of various kinds. Mr. Huxley has also some cones of pines brought lately direct from Italy, the fruit of which is edible, and of agreeable flavor.

New Variety of Wheat.

Several farmers in this quarter have cultivated a new variety of Wheat, for a year or two past, with great satisfaction. It is called Alabama Wheat, from the fact, that about half a pint was brought here from that state in 1839, by an observing farmer. After finding that it succeeded well in this climate, he disseminated it for seed, and it is computed that this year 2,000 bushels have been raised, chiefly in the Whitewater Valley. It takes the preference, by far, over all other kinds of wheat brought to this market, weighing from 64 to 68 lbs. to the bushel. Its yield has averaged about 30 bushels to the acre this season; and the crop was so forward, that at Harrison, in this county, it was all harvested by the 6th of June; one man in that place has raised this season 800 bushels, that sells quick at $1 per bushel, for seed. Its culture in this quarter, and in the neighboring parts of Indiana and Ky., has been largely extended this fall. The Clermont Fourier Association will alone sow one hundred acres with it. Mr. Bradbury, Mr. Fagin, and probably other millers here, are selling it to farmers, for seed, at $1 per bushel. The supply, however, is far short of the demand.—*Cin. Atlas.*

The Potato Blight.

A New York farmer has discovered that the potato blight is caused by a small insect. He has discovered a small green colored maggot in the cavity of the diseased potatoes on his farm. The disease has been on the increase for several years and has excited great interest in Scotland, Germany, Sweden, and Russia. Another farmer suggests, that, to prevent the disease from spreading, the sound potatoes should be spread out and dried thoroughly, before they are stored away. He says: "I find them in the worst state on the wettest ground, the Carter potato is the most decayed; the common round red ones, nearly as much; and the ladies' fingers scarcely at all."

Guinea Goose.

This is the largest of the goose tribe which has fallen under our notice; it is of the size of the swan, and it often weighs more than 25 pounds. We have now in our possession one pair which we purchased for a gentleman in South Carolina, which will weigh, in common ordinary condition over 20 lbs. each. They are a noble bird, quite ornamental about the premises, and add much to the scenery, particularly if a sheet of water be near.

Horticultural Nursery.

In our notices of the Nursery and Floral Establishments in our neighborhood from time to time, we have omitted to speak of several on both sides of the river Ohio: we shall endeavor to complete these notices as soon as possible. There is a new concern of this kind commenced at the Latonian Springs, 5 miles south of Cincinnati, in Ky., a "Horticultural Nursery" by Messers. Mosher and Williamson; we understand they will have suitable for market by next fall a select assortment of peaches, apples, pears and plums, with ornamental trees and shrubs, and grape vines. This establishment we learn will be limited in extent, the proprietors intending to cultivate none but the very best and most select varieties, together with every thing that is new and good. They will have a depot in Cincinnati for the sale of their trees and plants.

Horticultural Premiums and Exhibition in Philadelphia.

We publish below a list of Premiums awarded by the committee of the Philadelphia Horticultural Society, as well as a part of the Fruit, &c., exhibited, to show to the members of the Cincinnati Horticultural Society the mode and manner of their doings in this way in the city (we still trust,) of peaceful proprieties and of sober habits. Cannot we begin next year to offer some premiums as an additional incitement to the public to push forward these objects here?

From the Philadelphia Saturday Courier.

HORTICULTURAL.

We give below an account of some of the Fruit, Plants, &c., exhibited at the Chinese Museum. Could not similar exhibitions be had in every county in this and every State in the Union?

The collection of Plants, &c., in the lower Saloon, was nicely arranged. The very first plant which the visitor observed upon entering the exhibition, was the Nelumbian Flower. It is a large pink flower, and about eight inches in diameter, and is called the Sacred Beau of India. This plant, however, is made of wax, merely to represent the natural flower, owing to the fact that the latter cannot be raised in our climate.

The designs of cut flowers were all splendid. The first one was a model of the monument over the tomb of Sir Walter Scott. It was from Andrew Dryburg, measures six feet base and twenty-one and a half feet high. The moss of which the base of the monument was composed, was taken from the banks of the beautiful Wissahickon. The trimming of the arches was of the coral flower. It excited universal admiration.

The next design was the model for an English Cottage, from the garden of William Norris, on Farmer's Lane. It was about six feet base, and eleven feet six inches high. The eaves or roof was supported by ten pillars, beautifully variegated with all kinds of flowers.

The next design was that of a Water Fountain, made by Archibald Henderson, out of wild flowers. The basin was made of hickory bark, and the top of the fountain of such flowers as represent the jetting and falling of water.

Mr. Adam Uber had also placed in the exhibition a small basket made of the Tree of Life, and covered with Dahlias.

A basket made of wild flowers, and seated on a table made of rough wood, the legs of which being the root of a cedar tree, was placed in the centre of the Saloon, at the extreme east end. To the left of this stood a centre-table, composed of Dahlias; it was magnificent.

Mr. John Sherwood, had placed a design of flowers, in the shape of a large basket, the top of which, in the language of Moore, was a bed of roses. The basket was about twelve feet long on the top, and tapered down so as to form a six feet base; it was covered with Everblooming Roses of different hues.

At the east end of the Saloon, immediately above the staging, was a festoon of flowers,—holding an anchor,—two hearts and two minds. It was made by Archibald Henderson, and was the product of the garden of Wharton Chancellor, of Germantown. It was much admired by all.

Mr. Robert Buist, had a vase of flowers, so constructed as to present a light, neat, and airy appearance.

The view of this exhibition from the centre of the stage, at the east end of the room, was most magnificent. Directly in front was a bed of roses—the fountain of flowers—the cottage—the monument of Sir Walter Scott, while above and below, to the right and the left, the eye fell on choice plants, of gorgeous splendor, from every clime, and the rippling water, as it ascended and fell from the marble fountain, amidst them all, lent an enchantment to the view, and was pleasing to the ear.

In the upper Saloon, at the east end, there was an arbor covered with grapes, and the large table, to which an addition had been made, was filled with the products of the summer. The rich store of fruit there displayed, is worthy of a more extended notice than we at present can give it, owing to the crowded state of our columns.

The committee to award premiums made the following report:

Native Grapes.—For the best Isabella, six bunches, $3—John M. Ogden; next best, $2—John Stokes; best Bland or Powell, $3—Gen. Patterson; next best, $2—Benj. E. Valentine; best Catawba, $3—Gen. Patterson; next best, $2—J. B. Baxter; best Elsinborough, $3—Charles Chancey; next best, $2—Susan J. Smith; best of another variety, not less than six bunches, $3—Joseph Gorgas.

Foreign Grapes, raised in the open air.—For the best Black or Red Hamburgh, four bunches, $5—John Naglee; Hansteretto, $5—Mrs. Rauffenback; Chasselas, $5—Henry Farnum; White Gascoigne, $5—I. Comfort, Montgomery county, Pennsylvania; White Muscat, $5—Edward Middleton.

Foreign Grapes, raised under glass.—For the best with artificial heat, four bunches, $5—A. W. Mitchell; next best, $3—James Saw; best without artificial heat, $5—A. W. Mitchell; next best, $3—R. S. Field.

Vegetables.—For the best Water Melons, not less than three in number, $3—William Brown; next best, $2—Joseph C. Zane, New-Jersey; best Nutmeg Melons, or variety thereof, $2—Miss Gratz; best Cranberries, cultivated, not less than half a bushel, $2; best Potatoes, not less than one bushel, $2—Joseph C. Zane, New

Jersey; next best, $1—Samuel Cooper, New Jersey; best Sweet Potatoes, not less than one bushel, $2—William Brown, New-Jersey; best Onions, not less than four dozen, $2—J. Riley, Gardener, Insane Hospital; best Cabbage, not less than six heads, $3—Anthony Felton; next best, $2—Miss Gratz; best Red Cabbage, $3—Edmund Rogers; best Carrots, garden culture, two dozen, $2—Anthony Felton; best Lettuce, not less than six heads, $2—same; next best, $1—Jacob Engleman; best Endive, blanched, not less than six heads, $2—same; best Salsify, not less than two dozen, $2—Anthony Felton; best and greatest amount of Honey, produced by one swarm of bees, of the present season, $5—Samuel Trites, Kingsessing; next best, $3—same.

Special Premiums.—For the best display of Vegetables, $5—Anthony Felton; next best, $4—Jacob Engleman; fine display, $3 each to Miss Gratz, J. C. Engleman, J. Perkins, (including fine display of Alabama corn,) Gardener to Mrs. J. S. Duval, George B. Rœssler, Robert Reed, Gardener to Mr. Van Derkemp; three fine varieties of Seedling Onions, $3—J. S. Hatch; Mammoth Pumpkin, $3—William B. Smith; best display of Honey, $3—E. Middleton, near Darby; fine displays, $2 each to William F. Jones, I. Comfort, Josiah Foulke, Joseph Sholl.

Dahlias.—For the best twenty named varieties of Dahlias, $3—Gerhard Schmitz; next best twenty named varieties, $2—same; best American Seedling Particolored Dahlia, $3—same; best American Seedling Selfcolored Dahlia, $3—same; best ten named varieties of Dahlias, grown by amateurs, $3—same; next best ten named varieties, grown by amateurs, $2—same; best Dahlia, grown by amateurs, $2—same.

Designs, formed of Cut Flowers, &c.—For the best and most appropriate Design, $40—Andrew Dryburg, Sir Walter Scott's Monument; next best, $30—Joseph Cook, Gardener to William Norris, English Cottage; next best, $25—Archibald Henderson, Fountain; next best, $20—John Sherwood, Mammoth Basket; next best, $15—Peter Raabe, sign in front of the building; next best, $10—William Carvill, Grape Arbor, Upper Saloon; next best, $5—Adam Uber, Centre-table.

Bouquets.—For the best and most approved, $7—Mrs. Gen. Patterson; next best, $5—Miss Emily Smith, Camden, New-Jersey; next best, $3—Phillip Riley; best formed of indigenous flowers, $5—Archibald Henderson; next best, $3—No. 23; best pair of Wreaths, for festooning, $10—Henry Smith; next best, $5—Archibald Henderson; special premium of $3—Robert Buist, vase of flowers; special premium, $3—John M'Intosh, urn; special premium, $2—Thomas Reilly, pyramid; special premium, $2—Robert Kilvington, basket; special premium, $1—basket.

Fruits.—For the best Peaches, not less than one peck, $3—George Thomas; next best, $2—J. E. English; best two dozen, $2—Thomas Hancock; best bushel, $10—Joseph E. Scott; next best, $5—E. Middleton; best Seckel Pears, not less than one peck, $3—Thomas Hancock; next best, $2—J. Askew; Buerré, or Butter Pears, not less than one peck, $3—Geo. Pepper; next best, $2—Frederick Brown; best Bartlett Pears, not less than half a peck, $3—J. A. Sanderson; best Pears of another variety, not less than one peck, $3—S. Maupay; best and most uumerous named variety of Pears, $5—Thomas Hancock; next best, $3—S. Maupay; best Apples, not less than one peck, $2—Benjamin Stiles; next best, $1—J. R. Brinckle; best bushel, $3—Thomas Hancock; next best, $2—Joseph Fox; best and most numerous named varieties, $5—Thomas Hancock; next best, $3—G. B. Deacon; best Quinces, not less than half a peck, $3—Isaac Wilkins; next best, $2—Edward Smith; best Nectarines, not less than one dozen, $3—Frederick Brown; best Plums, not less than two dozen, $3—James M'Gill; next best, $2—Joseph Price.

Variety.

One of the prettiest varieties at this time for the lawn or shrubbery, is perhaps the *Euonymus atropurpureus*, or Burning Bush, which at this time is covered with a fine crop of red berries, that will continue until winter, and form a lively contrast to her snowy vestment, and the sombre foliage of the Arbor Vitæ, and other evergreens. Variety is a pleasing native charm of domestic society; it is also one of the capital items in rural scenery. E. S.

The Medlar.

The Medlar is considered to rank among the choice table fruits of Great Britain and Germany, and is highly deserving a trial in this country, where it cannot fail to answer and prove productive. The tree is of a comparative hardiness to the Quince and white thorn *Cratægus;* and is inoculated on either with success. The fruit, like the Persimmon, is eaten when in a rotten state, and is esteemed as a luxury by the amateurs of fruit. E. S.

☞ In cultivating the Strawberry, to prevent an excess of males the vines must be kept in separate hills and not allowed to run; or plant them in rows, and plant ten rows of females to one row of males. The female rows may be allowed to run if the male runners are cut off once in two or three weeks.

Cultivation of the Quince.

Messrs. Editors:—The Quince is but little cultivated, as a useful fruit, in this country; and it is indeed, from some unknown cause to me, greatly neglected wherever it thrives, although the fruit is always in demand, and generally commands a good price. There is no fruit tree, I am acquainted with, that requires more, and pays better for, pruning than the Quince; and there are, I believe, few that receive less, or are more neglected. The Pear, the Apple, the Peach, Cherry, and the many etceteras, are all cherished, dug around, pruned and trained by the amateur, but the Quince is often left "solitary and alone," by the side of a ditch, with its roots overgrown with grass or rank growing weeds and briars, unpruned and neglected, only when in fruit, and then the good lady of the house has a jealous eye for its golden load, and would sooner be deprived of her best sett of China than the crop of Quinces to grace her table, as one of the best preserves; and then every one exclaims, What a fine preserve the Quince is—how very delicious!—Now, sir, as I am always an advocate for the ladies, and have one present whilst writing, which gives credence to this assertion, I hope this much neglected tree will arrest the attention of the cultivators of fruit, and be pruned and cultivated in connection with other trees of the orchard.

The Quince thrives best in a rich loamy soil, and if planted by the side of a ditch, by the side of pig-pound, cow-house shed, or such location, it grows and bears well. The tree is increased and propagated by taking the suckers from the mother plant, by layering, and by putting out cuttings in the spring, precisely the same as the Gooseberry and Currant. Pruning, as I have said before, is essentially necessary, and should be done at the fall of the leaf; the method I adopt, is simply to cut out all the small old branches at the points, and leave all young shoots of the last year's wood, which will be the bearing branches next year; the small old twigs are always unfruitful, and take a portion of the sap from the fruitful ones, and hence the utility of pruning. The principal object to be kept in view by the pruner, is to cut out a portion of old-bearing wood every year, in order to bring in young shoots for fruiting the succeeding summer, and to keep the tree in regular and uniform shape.

In addition to the usefulness of the Quince as a fine fruit, the tree answers as an excellent parent stock to graft or inoculate the Pear upon; and perhaps on giving it a fair trial will evade some of the diseases the Pear stock is subject to, as the fire-blight, &c. The roots of the Quince do not penetrate so deep as the Pear tree into the subsoil, which perhaps will be traced as an evil to the growth of the Pear in wet weather, as the soil must certainly become cold and saturated at a certain depth, and consequently the root of the tree must be in a colder temperature than the branches.

Yours, E. SAYERS.

The Strawberry Plant.

Editors of the Horticultural Magazine:

Gentlemen,—I discover in a late number of your Magazine, a communication from Mr. Brown, of Walnut Hills, on the selection and cultivation of the Strawberry plant. By his account, all that is necessary to produce fruit in abundance, is to select young thrifty plants, select certain soils, and plant and tend them with care. Before a person undertakes to teach others, he should be perfect master of the subject of which he treats. Mr. Brown has not been quite explicit enough on this head. Either he or myself have little knowledge of the botanical character of the plant, or its cultivation, and I am anxious to ascertain where the error lies. He has named several varieties, and among them the Old Hudson. I name this, as the one whose character is best known, though the principle is equally true in respect to all the others named. He may plant one hundred or more Hudson's, of his own selection, in soil to suit him, under the supervision of a committee of the President and three members of the Horticultural Society, to be named by the President, one hundred feet distant from all other Strawberry plants; we will each deposite from one hundred to five hundred dollars, and if his plants produce a crop (barring accidents and frosts,) he shall present my deposite to one of our Orphan Asylums—if they fail to produce a crop, I will present his deposite in like manner. If the first year's experiment be against him, and his faith continues, I will, the year following, make a like deposite of five hundred to one hundred dollars. To insure certainty in the selection, the plants to be taken from the garden of Mrs. Abigust or Mr. Jackson, or the President of the Society, Mr. Buchanan. I am equally willing to make the same experiment with any other person, even Mr. Hovey himself, and permit him to select his own seedling, on which he has experimented many years.

Yours, N. LONGWORTH

Grape Vines.

Plant these in rows seven feet apart, and four feet apart in the rows; posts eight feet apart, set along the rows, with pegs driven in them fourteen inches apart—on these, rods of wood or lath are laid and secured, and to these the vines are to be lashed with bark; ground to be prepared by trench ploughing, so as to place the rich surface earth beneath the point of washing. Catawba the best sort of grape, particularly for wine.

Vegetables.

We intend publishing a series of articles on Vegetables, of which the following is one, from the pen of Mr. E. Sayers, who has had very considerable experience in both England and America, as a practical gardener.

Culture of Asparagus.

Asparagus, or Spearage, is a native of Great Britain, where it is found growing in its primitive state, of a small slender habit, not much larger than the spikes of meadow-grass; it derives its name, *Spearage*, from the spear-like appearance of the shoots when they first protrude from the ground: no vegetable that I am acquainted with, is more capable, by an excess of food and high cultivation, of being brought to so luxuriant a state of being: the great pains that have been by many cultivators bestowed on the culture of this esculent, renders it capable of the term Giant being applied to the most luxuriant variety. The term *Giant* applied to the vegetable kingdom, being synonymous to a redundancy in the animal, I think is incorrectly applied. I shall, therefore, propose a more applicable term to those vegetables that admit of such redundancy, viz: *Monstrous Asparagus*, *Monstrous Rhubarb*, and the like, "deviating from the common course of nature."

The use and manner of preparing this vegetable for table, is too well known to require any comment from me; I shall, therefore, proceed to its culture. The old fantastic way of digging out the soil two or three feet deep, and paving with oyster shells, bricks, stones, and the like, I shall leave with the cultivators of old, and endeavor to point out a system that will bear the test of the present improved state of horticulture. However, in one thing I shall differ from the present mode of culture adopted by the general mass of cultivators, (and I believe not generally agreed to by many scientific gardeners at the present day,) which is the planting the bed in the latter end of May or the beginning of June, when the plants are in a full state of growth. I have had many convincing proofs that the planting of Asparagus roots in the fall and early in the spring, is not the best method. The roots of Asparagus being fasticulate, which is spreading from a common centre or crown in the shape of a hand, or something in the form of a crab; the roots protruding from the centre are long and fleshy, subject to rot in too much moisture when transplanted, and to dry up if kept in too dry a situation, and to mould in the winter in either; hence the roots should never be disturbed in the fall. When new beds are planted in the fall, many plants are liable to fail, and those that do not, have many of their roots much injured, and are thus much weakened before vegetation takes place.

The great advantage of the system of planting in June is, that it gives an opportunity to prepare the ground well in the spring, when the sun and air can penetrate and operate on it to very good effect; there is also a certainty of planting, for if well done, there need not be any failure, the plants being in a good state to grow and cling to the soil.

Culture.—Asparagus is increased by seed, and may be sown in the autumn as soon as ripe or early in the spring, in a rich piece of ground, in drills eighteen inches apart, and well cultivated during the summer. The plants should be thinned to an inch apart, in order to give them strength; for when allowed to grow too thickly together, the crowns will be weak, and injure one another.

The succeeding spring, the plants may be transplanted into a well prepared nursery bed, fifteen inches apart between the rows, and three or four inches apart in the rows. The mode of planting is, to draw drills with a hoe three inches deep, and dividing the fibrous roots, they are to be laid into the rows crown upwards. The planting being done, all that is required during the season is good culture.

Transplanting into the Final Bed.—The bed for final planting being prepared as before directed, at the proper time it may be planted in the following manner: Lay it out into four feet beds, with two feet alleys—drive down cedar stumps three feet long, at the four corners of the bed, leaving one foot of the stumps above the surface; this done, draw drills eighteen inches apart in each bed, six or eight inches deep, and plant the plants as before directed, eight or ten inches apart in the rows, covering them slightly with soil or compost from the compost heap.

The bed will require to be hoed and well cultivated during the summer, and in the fall it should be covered with a quantity of good rotten manure; early in the spring, rake off part of the long manure, and as soon as the surface is dry, it may be broken up with a three pronged fork, to loosen the surface. During the summer, all kinds of weeds must be taken from the beds as they make their appearance, and everything should be done to facilitate the growth and vigor of the plants. In the fall, as soon as the stalks are ripe, they may be cut off close to the ground, and the bed may be replenished with manure, and the surface earth of the alleys may be skimmed off a few inches deep and thrown over the bed. In the spring, the surface of the bed may again be forked; and the same process followed every year.

Remarks.—The principal items in growing good Asparagus are, that a good, deep, rich piece of ground be chosen for the bed, in a location where it will be always tolerably moist; low, marshy ground, is a good situation. In order to succeed, and have good grass, it is necessary that the bed be replenished every fall

with good rotten manure, and be kept perfectly clean from weeds, especially the perennials, as the couch-grass, &c. Care must be taken also that the bed is not exhausted by cutting the spears too late in the season; it should always be a rule *never* to cut Asparagus after green peas are in use, which are the following vegetable to it. No Asparagus should be used until the second or third year of planting.

From the Western Cultivator.

The Blight.

[This paper, read before the Indiana Horticultural Society, by Rev. H. W. Beecher, was ordered to be sent to the Western Cultivator, Indianapolis, Indiana; to the Farmer and Gardener, Cincinnati, Ohio; and to Hovey's Magazine, Boston, Massachusetts.]

The year 1844, will long be remembered for the extensive ravages of that disease hitherto denominated *Fire-Blight*. Beginning at the Atlantic coast, we have heard of it in Pennsylvania, Maryland, Virginia, Ohio, Kentucky, Indiana, and as far as Tennessee; and it is probable that it has been felt in every fruit-growing State in the Union, where the season of 1843 was the same as that west of the Allegheny range,—namely, cold in spring, dry throughout the summer, and a wet and warm fall, with early and sudden winter.

In Indiana and Ohio, the *blight* has prevailed to such an extent as to spread dismay among cultivators—destroying entire collections, taking half the trees in large orchards, affecting both young and old trees, whether grafted or seedlings, in soils of every kind. Many have seen the labor and fond hope of years cut off, in one season, by an invisible destroyer, against which none could guard; because, in the conflicting opinions, none were certain whether the disease was atmospheric, insect, or chemical.

I shall now proceed to describe that blight known in the Western States, (without pretending to identify it with the blight known in New-York and New-England;) to examine the theories proposed for its causation, and to present what now seems to me the true cause.

I. *Description.*

Although the signs of it, as will appear in the sequel, may be detected long before the leaves put out in the spring, yet its full effects do not begin to appear until May, or if the spring be backward, until June. On the wood of the last year will be found a point where the bark is either dead and dry, or else at the same point the bark will be puffed, softened, or sappy with thickened sap; these two appearances indicating only different degrees of the same blight. Wherever the bark is dead and dry, the limb will flourish above it, make new wood, ripen its fruit, but perish the ensuing winter. In the other case, as soon as the circulation of the sap becomes active, the point described shows signs of disease, the leaf turns to a darker brown than is natural to its ordinary decay, being nearly black, and the wood perishes.

The disease, at first, blights the terminal portions of the branch; but the affection spreads gradually downwards, and sometimes affects the whole trunk. The time from the first appearance of the blight to that in which any affected part dies, is various; sometimes two or three weeks; sometimes a day only; and sometimes, but rarely, even a few hours consummate the disaster.

On dissecting the branch, the wood is of a dirty, brownish, yellow color; the sap thick and unctuous, of a sour, disagreeable odor, like that of a fermented watermelon, or the tops of potatoe vines after they have been frosted. In still, moist days, where the blight is extensive in an orchard, this odor fills the air, and is disagreeably perceptible at some distance from the trees.

Sometimes the bark bursts, the sap exudes, and runs down, turning black; and its acridity will destroy vegetation, on which it may drop; and shoots, at a distance from the trunk upon which the rain washes the ichor, will soon perish. When we come to treat of the *cause* of this disease, it will be important to remember this malignity of the fluids.

We are carefully to distinguish these appearances, peculiar to what I suppose ought to be called *winter-blight*, from another and a *summer-blight*. In this last, the leaf is affected at first in spots; gradually the whole leaf turns russet color and drops. Along the wood may be seen the hardened trail, as of a slimy insect, of an ash color. The *wood* suffers very little by this summer-blight, and sometimes none. The winter-blight is found on almost all kinds of trees. This summer, it has affected the apple, the pear, the peach, the quince, the English hawthorn, privet, black birch, Spanish chestnut, elder, and calycanthus. I enumerate the most of these kinds on the authority of J. H. James, of Urbana, O., and C. W. Elliott, Cincinnati; having observed it myself only on fruit trees.

II. *Theories.*

A variety of theories exist as to the causes of this disease. Some are mere imaginations; some are only ingenious; and some so near to what I suppose to be the truth, that it is hardly possible to imagine how the discovery was not made.

The injury is done in the fall, but is not seen till spring, or summer, or even the next fall. Thus, six months or a year intervene between the *cause* and the *effect*—a sufficient reason for the difficulty of detecting the origin of the evil.

1. Some have alleged that the rays of the sun, passing through vapors which arise about

the trees, concentrate upon the branches, and destroy them by the literal energy of fire. Were this true, the young and tender shoots would suffer first and most; all pear trees would suffer alike; all moist and hot summers would be affected with blight; herbaceous plants would suffer more than ligneous: all of which results are contrary to facts.

2. Some have supposed the soil to contain deleterious substances, or to be wanting in properties necessary to health. But in either case such a cause of the blight appears untrue, when we consider that trees suffer in all soils, rich or poor; that in the same soil, one tree is blighted, and the next tree escapes; that they will flourish for twenty years, and then blight; that a tree partially diseased recovers, and thrives for ten or more years without recurrence of blight.

3. It has been attributed to violent and sudden changes of temperature in the air and of moisture in the earth; to sudden change from sward to high tillage; and the result is stated to be an "overplus," of sap, or a "surfeit." All these causes occur every year; but the blight does not every year follow them. Changes of temperature, and violent changes in the condition of the soil may be *allied* with the true cause. But when *only* these things exist, no blight follows.

4. Others have attributed the disease to over stimulation by high manuring, or constant tillage; and it has been said that covering the roots with stones and rubbish, or laying the orchard down to grass, would prevent the evil. Facts warrant no such conclusions. Pear trees in Gibson county, Indiana, on a clay soil, with blue slaty subsoil, were affected this year more severely than any of which we have heard. Pears in southern parts of this state, on red clay, where the ground had long been neglected, suffered as much as along the rich bottom lands of the Wabash about Vincennes. If there was any difference, it was in favor of the richest land. About Mooresville, Morgan co., Ia., pears have been generally affected, and those in grass lands *as much* as those in open soils. Aside from these facts, it is well known that pear trees do not blight in those seasons when they make the rankest growth, more than in others. They will thrive rampantly for years, no evil arising from their luxuriance, and then suddenly die of blight.

5. It has been supposed by a few to be the effect of *age*; the disease beginning on old varieties, and propagated upon new varieties by contagion. Were this the true cause, we should expect it to be most frequently developed in those pear regions where old varieties most abound. But this disease seems to be so little known in England, that Loudon, in his elaborate Encyclopedia of Horticulture, does not even *mention* it. Mr. Manning's statement will be given, farther on, to the same purport.

Insect theory.

6. The confidence with which eastern cultivators pronounce the cause to be an *insect*, has in part served to cover up singular discrepancies in the separate statements in respect to the ravages, and even the species of this destroyer. The Genesee Farmer of July, 1843, says, "the cause of the disease was for many years, a matter of dispute, and is so still by some persons; but the majority are now fully convinced that it is the work of an insect (*scolytus pyri.*)" T. W. Harris, in his work on insects, speaks of the minuteness and obscure habits of this insect, as "reasons why it has eluded the researches of those persons who disbelieve in its existence as the cause of the blasting of the limbs of the *pear tree.*" Dr. Harris evidently supposed, until so late as 1843, that this insect infested only the *pear tree*; for he says, "the discovery of the blight-beetle in the limbs of the apple tree is a new fact in natural history; but it is easily accounted for, because this tree belongs not only to the same natural group, but also to the same genus as the pear tree. It is not, therefore, surprising, that both the pear and the apple tree should occasionally be attacked by the same insect." [See an article in the Massachusetts Plowman, summer of 1843, quoted in Genesee Farmer, July 1843.]

This insect is said to eat through the *alburnum*, the hard wood, and even a part of the pith, and to destroy the branch by separation of part from part, as a saw would. On these facts, which there is no room to question, we make two remarks.

1st. That the blight thus produced is *limited*, and probably sectional or local. No account has met my eye which leads me to suppose that any considerable injury has been done by it. Mr. Manning, of Salem, Massachusetts, in the second edition of his Book of Fruits, states that he has never "*had any trees affected by it*"—the blight. Yet his garden and nursery has existed for twenty years, and contained immense numbers of trees.

2d. It is very plain that neither Mr. Lowell, originally, nor Dr. Harris, nor any who describe the blight, as caused by the blight-beetle, had any notion of that disease which passes by the same name in the middle and western states. The blight of the *scolytus pyri* is a mere *girdling* of branches—a mechanical separation of parts: and no mention is made of the most striking facts incident to the great blight—the viscid unctuous sap; the bursting of the bark, through which it issues; and its poisonous effects on the young shoots upon which it drops.

I do not doubt the insect-blight; but I am sure that it is not *our* blight. I feel very confident, also, that this blight, which from its devastations, may be called the great blight, has been felt in New England, in connection with the insect-blight, and confounded with it, and

the effects of two different causes, happening to appear in conjunction, have been attributed to one, and the least influential, cause. The writer in Fessenden's American Gardener, (Mr. Lowell,) says of the blight, "it is sometimes so rapid in its progress, that in a few hours from its first appearance, the whole tree will appear to be mortally diseased." This is not insect-blight; for did the blight-beetle eat so *suddenly* around the whole *trunk?* Now, here is a striking appearance of the great blight, confounded with the minor blight, as I think will appear in the sequel.

This theory has stood in the way of a discovery of the true cause of the great blight; for every cultivator has gone in search of insects; they have been found in great plenty, and in great variety of species, and their harmless presence accused with all the mischief of the season. A writer in the Farmer's Advocate, Jamestown, N. C., discerned the fire-blight, and traced it to "small, *red*, pellucid insects, briskly moving from place to place on the branches." This is not the *scolytus pyri* of Prof. Peck and Dr. Harris.

Dr. Mosher, of Cincinnati, in a letter published in the Farmer and Gardener for June, 1844, describes a third insect—"*very minute brown-colored aphides*, snugly secreted in the axilla of every leaf on several small branches; * * * * most of them were busily engaged with their proboscis inserted through the tender cuticle of this part of the *petiole* of the leaf, feasting upon the *vital juices* of the tree. The leaves being thus deprived of the necessary sap for nourishment and elaboration, soon perished, * * * * while all that part of the branch and trunk below, dependent upon the elaborated sap of the deadened leaves above, shrunk, turned black, and dried up."—p. 261.

Lindley, in his work on Horticulture, p. 42—46, has detailed experiments illustrating vegetable *perspiration*, from which we may form an idea of the amount of fluid which these "very minute brown-colored aphides" would have to drink. A sunflower, three and a half feet high, perspired in a very warm day thirty ounces—nearly two pounds: on another day, twenty ounces. Taking the old rule, "a pint a pound," nearly a quart of fluid was *exhaled* by a sunflower in twelve hours; and the vessels were still inflated with a fresh supply drawn from the roots. Admitting that the limbs of a fruit tree have a less current of sap than a sunflower or grapevine, yet in the months of May and June the amount of sap to be exhausted by these very minute brown aphides would be so great that if they drank it so suddenly as to cause a tree to die in a day, they would surely augment in bulk enough to be discovered without a lens. If some one had accounted for the low water in the Mississippi in the summer of 1843, by saying that buffaloes had drunk up all the upper Missouri, and cut off the supply, we should be at a loss which most to pity, the faith of the narrator, or the probable condition of the buffaloes after their feat of imbibition.

But the most curious results *follow* these feats of suction. The limbs and trunk *below*, shrink and turn black, for want of that elaborated sap extracted by the aphides. And yet every year we perform artificially this very operation in ringing or decortication of branches, for the purpose of accelerating maturation, or improving the fruit. Every year the *saw* takes off a third, a half, and sometimes more of a living tree; and the effect is to produce new shoots, not death. Is an operation which can be safely performed by man, *deadly* when performed by an insect? Dr. Mosher did not detect the insects without extreme search, and then only in colonies, on healthy branches. Do whole trees wither in a day by the mere suction of such insects? Had they been supposed to *poison* the fluids, the theory would be less exceptionable, since poisons in minute quantities may be very malignant.

While we admit a limited mischief of insects, they can never be the cause of the prevalent blight of the middle and western states—such blight as prevailed in and around Cincinnati in the summer of 1844—nor of that blight which prevailed in 1832. The *blight-beetle*, after most careful search and dissection, has not been found, nor any trace or passage of it. Dr. Mosher's insect may be set aside without farther remark.

I think that farther observation will confirm the following conclusions:

1. Insects are frequently found feeding in various ways upon blighted trees, or on trees which afterwards become so.

2. Trees are fatally blighted on which no insects are discerned feeding—neither aphides nor *scolytus pyri*.

3. Multitudes of trees have such insects on them as are in other cases supposed to cause the blight, without a sign of blight following. This has been the case in my own garden.

(To be continued.)

A beautiful gift for a Lady.

AMERICAN WILD FLOWERS IN THEIR NATIVE HAUNTS. By Emma C. Embury. With twenty plates of plants, carefully colored after nature; and landscape views of their localities, from drawings on the spot, by E. Whitefield. Published by D. Appleton & Co., New York, and Geo. S. Appleton, Philadelphia. 1845.

This is a splendid work; its embellishments of engraving, coloring, printing, paper, and binding, in the highest style of art. How suitable a present from a gentleman to a lady! Here are nature's gems (flowers) in her humblest walks, a fit presentment to nature's gem (woman) in her highest department. Flowers are fitting types of sweet womankind! How suitable to the more refined portion of the human race!

We feel a pleasure in noticing this beautiful production of the press, in a work like ours, devoted to the beauties as well as the utilities of horticulture. The literary portion of this lovely book is meritorious, and in good keeping with the subject matter. The flowers are somewhat too highly colored, but it is difficult to prevent altogether this effect on paper. The wild flowers form the prominent and near objects in the foreground of a lithograghic engraving of the Hudson and other river scenery, which latter has the appearance of soft pencil drawing.

The work is for sale at Derby & Co's. Main street, above 3d, a handsome neat store, and filled with fine specimens of volumes, some of them agricultural and horticultural, bound in the highest style of ornament.

[Extract from the M.S. of the American Flower Garden Companion.] By E. Sayers.

Shrubbery and the Culture of Shrubs.

The shrubbery is so nearly allied to the flower garden, that in a work professedly treating of the latter, a particular notice of the former subject is required. Indeed it is rare that a flower garden has a good and natural appearance without the presence of the shrubbery, either in forming an outline on the margin, or occupying a prominent situation at one end for the convenience of a shady retreat or other useful purpose. *Shrubs* are either *diciduous* or *evergreen;* the former are exemplified in the *lilac, double-flowering almond,* and *Snowberry;* the latter in *Kalmia* or *American laurel* and *arbor vitæ,* and those plants that are always clothed with leaves, and hence the name evergreen.

Upon a careful observation of the general method of laying out flower-gardens, it will be seen that there is too much sameness in their appearance, arising from the neglect to appropriate a part of the ground to ornamental and flowering shrubs. This I imagine to be chiefly owing to the *geometrical* or Dutch system being mostly followed in laying out flower gardens: and hence a method has been adopted that is *proper* and natural to a foreign climate, but has little claim upon good taste in this country, where climate and local circumstances are so opposite. It is a well known fact, that the Dutch are the most successful cultivators of the tulip, the hyacinth, and most other kinds of bulbous rooted plants, in the known world; and it is also known, that the soil and situation in which they are grown are of a humid nature, which is congenial to most kinds of hardy bulbous rooted plants. Such local circumstances, united with industry and intelligence, have put the Dutch florist in possession of an annual income from bulbous flower roots of a very large amount, which it is probable will not be equalled by any other country for ages. But the climate of *America* is not favorable to the culture of bulbs to a great extent, owing to the soil and atmosphere being more dry in the spring and summer season: on the other hand, *hardy,* hard wooded shrubs, as the *rose, double-flowering almond, lilac,* &c., are well adapted to our soil and climate, and flourish extremely well in the western and northern states. The native varieties of beautiful shrubs, for which this country is so eminently celebrated, by the European horticulturists and amateurs, are also peculiarly adapted to the shrubbery, and are highly deserving a more general introduction into the flower gardens and foregrounds of country residences. It is greatly to be hoped that the present good taste and enlightened state of horticultural improvement in every department, will be the means of arousing the attention of every lover of *native* scenery to the culture and cherishing our *native American Flora.* This method will at once create a taste for cultivating *native* plants and flowers, and facilitate a practical knowledge of their habits and location, in a natural state. The most pleasant associations that my early days *ever have and ever will hold in recollection,* are in the straying in search of native plants for my little *parterre,* each succession of flowers from the primrose to the fall flowers were eagerly collected with sisters and brothers in infantile unison; and I am certain that when the youthful mind is thus employed, it imbibes the most noble principles it is capable of comprehending.

I recommend that shrubbery be more frequently planted on the margins of lawns, the outsides of the flower garden, and for clumps on extensive grass plots to give a variety; and indeed in all kinds of foregrounds and side entrances of almost any denomination. To residences on the main road and in the immediate vicinity of cities, shrubbery can with every propriety be introduced on the side wings of the lawn and carriage roads; and in many cases, if a belt or border of some six or eight feet wide of shrubbery be planted in front next to the road that passes such places, it would add much to the beauty and value of the property. In many places of this description the front entrances are planted altogether with forest trees, as the *balsam, fir, sugar maple, horse chestnut, ailanthus, catalpa,* and similar tall growing kinds,

which when grown to the full size give a heavy and gloomy appearance where a lively variation should have the precedence. There can be no objection, however, to a few ornamental trees being planted in front of such houses, or even mingled with the shrubbery, and particularly if so managed as to form a *screen* or outline to protect the building from the cold winds: trees so situated serve the double purpose of shelter and ornament. In planting shrubs of every denomination, the general rule should be, to place the plants so that their habit and appearance will be really ornamental and at the same time subserve (or at least seem to) some useful end: for instance, the taller kinds, as the *lilac*, *snowball*, and the like, are the most proper to cover board fences, and the back part of shrubberies; the more dwarf kinds, as the *double flowering almond*, *roses*, *mezereon*, and so on, for the front or facing. There is also some taste required in mixing the varieties of foliage and habits of the different kinds to be planted, which can only be acquired by due observance of shrubs when in full foliage. The planting should be so managed that when grown up the outline is *natural*, that is to say, not too formal; but here and there a little broken by some tall shrub growing above the rest. In the front of such plantations a part of them should be planted with herbaceous and other kinds of plants, which, when nicely mingled with the shrubs, form a pretty contrast in the flowering season. Indeed the margin of a shrubbery is the only situation where such plants will flourish and show to good advantage, besides giving a fine finish to the whole.

A short list of some of the Shrubs that are to be had at the Cincinnati Nurseries.

Double Flowering Almond,—Cornelian Cherry,—Laburnum or Golden Chain,—Calycanthus, or Sweet Scented Shrub,—Silver Bell Tree,—Altheas,—Corchorus,—Tartarian Honeysuckles,—Venetian Sumac or Fringe Tree,—Rose Acacia,—Buffalo Berry,—Spireas, in variety,—Snowberry, Lilacs, Persian, &c.—Snowball,—White Berried Dogwood, Osage Orange, &c.

Evergreens.

American Arbor Vitæ,—Chinese Arbor Vitæ,—American Holly,—Amer. Savin,—American Yew,—American Red Cedar,—Balm of Gilead, Balsam Fir, or American Silver Fir,—Common Dwarf Box,—Hemlock, or Drooping Spruce Fir,—Norway, Spruce Fir, very beautiful,—Red Pine,—Swedish upright Juniper,—White or Waymouth Pine,—White Cedar.

Chrysanthemum Indicum.

"For him the spring
Distils her dews, and from the silken gem
Its lucid leaves unfolds—for him, the hand
Of autumn tinges every fertile branch
With blooming gold and blushes from her wings;
And still new beauties meet his lonely walk,
And loves unfelt attract him."

This is one of our late and most desirable fall flowers;—desirable because it expands its beautiful flowers at a time when others cease to cheer us, thus shedding an agreeableness around our rooms, enlivening the monotony of the gloomy months of November and December, making our existence appear cheerful despite of

"Stern winter, clad in frost and snow."

This plant is indigenous to Cochin-China, and cultivated in the gardens in Japan. The first account of its introduction was into France, in the year 1754, and the following year it was imported into England; even these were but indifferent flowers, comparatively speaking, with those in cultivation now. Such was the sensation created for those flowers, that no expense was spared to improve the quality and quantity. The Chinese had about fifty kinds, which were cultivated by them to great perfection; large flowers being their principal aim, as they never permitted more than one flower to grow on a stem; some few of the Chinese fasten their stems with wire, in as many different forms as the nature of the plant would allow, and a stranger at a little distance, could not account for their symmetry being kept in such position. In 1808, Sir Abraham Hume and others, introduced eight varieties of the finer quality. When we consider how badly this plant bears packing, we need not wonder at their not being introduced faster into Europe than they were. There has been a great change in this fall-beauty of late years; we are no more dependent on China for new varieties, as they are brought to seed in France and the Isle of Jersey, in the British Channel; from this circumstance new varieties are raised every season. It is with regret that I repeat it, the quantity has elicited more enthusiasm than the quality; therefore it is most desirable for persons to purchase when in flower, unless you take varieties that have proved good flowers. We have in this city some first-rate; I have about forty varieties, some entirely new in the west, and if report only speaks the truth, are really good. The whole of the summer has been unpropitious for flowers, therefore good chrysanthemums must not be expected this season, that is, generally speaking: there may be some good flowers in some collections. One great fault, this season is, I find their leaves drop earlier than usual, by which the beauty of the plant is partially destroyed, although the flowers will be the same as if it did not occur. The chrysanthemum is divided into the following classes: ranunculus-flowered, 13 varieties;—

in-curving ranunculus-flowered, 6 varieties;—china-aster-flowered, 6 varieties;——marigold-flowered, 7 varieties;—tassel-flowered, 11 varieties;——and half-doubled tassel-flowered, 5 varieties. There are 48 varieties described in the Horticultural Transactions in England, and additional varieties arranged in the Gardener's Magazine. I do not know a flower that is more calculated to please any person that has the least taste for flowers than this, for we find it in almost every family, and is the poor as well as the rich man's flower. Being easily cultivated makes it rather common, but that does not impair its beauty, or like most flowers when common, lessen its value in the mind of the public, if it does in price. From the number of fine plants now in cultivation, a person can be furnished with first-rate varieties at a moderate price. I notice most of those plants cultivated five years since, are cast away to make room for better ones. Many who possess these plants, I discover, do not understand their culture to advantage, and yet no plant is more simple. Many will endeavor to produce the most flowers by planting more than one stem in a pot, and by this means defeat the object. The best plan is, at the end of April to take cuttings from the tops, three or four inches long, and plant them in two-inch pots, one in each, and place them in a frame and cover them with a glass, or in some shady place and water them freely; they will soon root, and when the pot is filled with roots, re-pot them into the next size; repeat this until the pots are six inches, which will be large enough to flower in. In July, pinch off the tops; this will cause them to put out lateral shoots, and in August trim off all the laterals but three, which will be sufficient for one pot, as these will also put out laterals which should be permitted to grow. The proper soil to raise chrysanthemums in is one-half old manure, one-half loam with a portion of sand, the quantity will depend on whether your loam contains sand. If you plant them in the open ground do not take them up until their buds are well formed, and in damp weather. Planting in beds is a good plan, and will want no attention being paid them all the summer more than topping and trimming. You must not let them remain in the ground for the early frost to injure their buds. Fine dwarf plants are obtained by layering them in the month of August; by pegging them down at a joint, they will soon strike root and be fit to pot in the middle of September, and then brought into the house. Chrysanthemums, if planted too close, whether in the ground or pots, will drop their leaves; or if brought into the house too early, the effect will be the same; therefore keep them out of doors so long as the frost keeps off, and you will find your labor well repaid by a splendid display of flowers. This plant is a greedy one, and requires a great deal of water, and such is the nature of it, that you may water the foliage in the middle of summer, when the sun is shining, and it will seem to thrive the better, which is contrary to the nature of other plants. Many persons are in the habit of watering this plant with liquid manure, but I would not advise it unless by a person of some experience, as the plants may be burnt before you are aware of its tendency. I once saw a lot destroyed this way, which makes me add this caution.

T. WINTER.

The Flower Garden for December.

This is a good time to get in manure for beds and borders, and turn them over occasionally to destroy the cut worm; the adoption of this plan will save you much trouble and vexation in the spring. In open weather you may still remove roses and ornamental shrubs; mulch them; also those removed in the fall. Trim roses, if not already done, by cutting out the old wood, and shorten the young, to make their flowers larger and more profuse in the coming season. Protect your hyacinth and tulip beds without delay, with manure from the lead factory or with tanner's bark. Remove all rubbish by dressing your beds and paths, to give this department as neat an appearance for the winter as possible.

THE PARLOR.

Begin to put hyacinths in glasses, and place them in the sun in the day and remove them out of reach of frost in the night, and change the water often. Care must be taken of all plants in pots, and water sparingly in the winter; remember, that plants suffer less for want of water through this and next month than by giving too much. Camellias will require care as their buds continue to swell. Chrysanthemums, done flowering, should be cut down, marked, and put away for the winter. Verbenas should be watered sparingly, and as much exposed to the light as possible; also, geraniums, and be careful of frost, if you want good flowers, which you seldom get from frosted plants. Should your plants get frozen, the best thing to be done, is to place them in some dark place, until the frost be gradually drawn out: by observing this plan, many good plants may be saved; the best plan is never to trust to the appearance of mild weather at this season of the year, as the weather frequently changes in a few hours.

T. WINTER.

Geraniums.—A geranium at the window, says Leigh Hunt, sweetens the air, rejoices the eye, links you with nature and innocence, and is something to love.

Bees.—Prince Albert is turning his attention to raising honey. He has an American Quaker, who keeps his hat on in his presence, and calls him "friend," to take care of the royal apiary.

Names.	Color.	Form.	Size.	Use.	Texture.	Quality.	Season.	Situation.	Remarks.
Bezi de Quessoy, see *Bezi de Caissoy.*									
89 Bezi Sanspareil.									
90 Bezi Vaet, ...	y. b.	obovate.	2	T.	B.	2	Dec. Jan.	W.S	Resembles the Chaumontel in flavor, but is not so rich.
Bishop's Thimble.									
91 Bishop's Thumb, . .	b. r.	oblong.	1	T.	J.	1	Oct.	S.	
Rousseline, (of some.)									
92 Black.									
Black Bess of Castle Menzies, see *Black Achan.*									
93 Black Worcester, .	b. rus.	obovate.	1	K.	C.	2	Nov.Feb.	S.	Rather gritty even when stewed.
Black Pear of Worcester.									
Parkinson's Warden.									
Pound Pear, (of some.)									
0 Blanquet Gros, . .	p. g.	obt. pyr.	2	T.	C.	2	Aug.	S.	
Blanquet Gros d'Eté.									
Roi Louis.									
0 Blanquet à Longue Queue, ...	p. g.	pyr.	3	T.	J.	2	July.	S.	
Long Stalked Blanquet.									
94 Blanquet Petit, . .	p. y.	pyr.	3	T.	J.	2	Aug.	S.	
Blanquette.									
Poire à la Perle.									
Bon Chrétien d'Auch, see *Winter Bon Chrétien.*									
95 Bleeker's Medow.									
96 Bloody Baker.									
97 Bon Carmelite.									
98 Bon Chrétien de Bruxelles.									
0 Bon Chrétien Doré, .	y.	pyr.	1	K.	C.	2	Nov. Dec.	S.	
0 Bon Chrétien d'Eté Musqué, ...	y.	pyr.	2		C.	2	Sept.		
99 Bon Chrétien, Flemish	y. b.	obovate.	2	K.	C.	1	Nov.Mar.	S.	Great bearer.
Bon Chrétien Turc.									
Bon Chretien de Vernois, (of some.)									
Bon Chretien Nouvelle.									
100 Bon Chrétien Fondant,	g. b.	oblong.	1	T.	J.	1	Oct. Nov.	S.	Has a cool refreshing juice like the St. Germain; tree hardier.
101 Bon Chrétien, Langley's Summer.									
102 Bon Chrétien, Spanish	y. r.	pyr.	1	K.	C.	1	Nov. Dec.	S.W	
Bon Chretien d'Espagne.									
Spina.									
103 Bon Chrétien, Summer,	y.	pyr.	1	T.	C.	2	Sept.	W.	Tree subject to canker in this climate.
Bon Chretien d'Ete.									
Sommer Apothekerbirne.									
Gratioli.									
Gratioli d'Ete.									
Gratioli di Roma.									
Sommer Gute Christenbirne.									
104 Bon Chrétien du Rhin.									
0 Bon Chrétien, Rushmore's, ...	y. r.	oblong.	2	K.	C.		Oct.	S.	
Bon Chrétien Turc, see *Flemish Bon Chrétien.*									
Bon Chrétien de Vernoi, see *ib.*									
105 Bon Chrétien, Williams's, ...	g. y.	obt. pyr.	1	T.	B.	2	Aug. Sept	S.	Soon decays.
Williams's Pear.									
Bartlett.									

Names.	Color.	Form.	Size.	Use.	Texture.	Quality.	Season.	Situation.	Remarks.
106 Bon Chrétien, Winter, Bon Chretien d'Hiver. Bon Chretien d'Auch. Bon Chretien de Tours. Bon Chretien de Vernon. D'Angoisse.	b. y.	irregularly pyr.	1	K. T.	C.	2	Dec. Mar.	W.	Sugary and rich, but generally gritty; rarely melting in this climate.
Bonne-ente, see *White Doyenné*.									
Bonne de Malines, see *Winter Nelis*.									
La Bonne Malinaise, see *ib.*									
Bonne de Kienzheim, see *Vallée Franche*.									
Bonne Rouge, see *Gansel's Bergamot*.									
Bonne de Soulers, see *Bergamotte de Soulers*.									
107 Bosc d'Eté.									
Bosc Sire, see *Flemish Beauty*.									
Bosch, see *ib.*									
108 Bossurgan Armudi.									
Bouché Nouvelle, see *Flemish Beauty*.									
De Bordeaux, see *Bezi d'Heri*.									
0 Bourdon Musqué, .	y.	roundish.	3	T.		3	Aug.	S.	Soon decays.
109 Bourdon du Roi.									
110 Bouvier d'Automne.									
111 Boyle Farm Wilding,	p. g.	roundish.	2	T.	B.	2	Oct.	S.	
113 Brass Hardwick.									
0 Braddick, ...	b.	obovate.	2	T.	C.	3	Dec. Nov.	S.	
Braddick's Field Standard, see *Marie Louise*.									
0 Braddick d'Hiver.									
114 Bratbirne, Aechte, .	b.	obovate.	1	C.	K.		Nov.	S.	
115 Bratbirne à Feuilles Luisantes.				P.			Sept. Oct.		
116 Brau de Saint Geamain.									
117 Bretagne.									
0 Briary Bush, . . .	y. r.	oval.	3	T.	C.	3	Oct.	S.	
Brilliant, see *Flemish Beauty*.									
118 Bringewood, . . .	y.b rus.	pyr.	2	T.	B.	1	Oct. Dec.	S.	Partakes of the flavors of the Melon and Pine Apple.
119 Broom Park, . . .	b.	roundish.	2	T.	J.	1	Jan.	S.	
120 Brougham, ...	y. rus.	roundish.	1	T.	B.	1	Nov.	S.	The Brougham is a great bearer.
Brule Bonne, see *De Forét*.		obovate.							
121 Bryan Edward's, . .	g.	obovate.	2	T.	J.	2	Nov.	S.	
Bujaleuf, see *Virgouleuse*.									
0 Buffam's, ...	b. y. r.	obovate.	2	T.	B.	2	Sept.	S.	Deep red next the sun.
122 De Buisson, . . .	y. b.	roundish.	3	P.					
123 Burgermeester, . .	b. rus.	pyr.	2	T.	B.	1	Nov.	S.	
124 Burghill.									
0 Butterbirne, Gelbe Sommer, ...	y.	roundish.	2	T.	B.	2	Aug. Sept	S.	

Amaryllis Formosissima.